



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/539,892

06/17/2005

Zhanping Xu

4870/PCT

3580

21553 7590 10/08/2009
FASSE PATENT ATTORNEYS, P.A.
P.O. BOX 726
HAMPDEN, ME 04444-0726

EXAMINER

HENN, TIMOTHY J

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

10/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 22 August 2009 have been fully considered but they are not persuasive.
2. Applicant argues that the "calibrating" of the Marchi reference, and the "calibrating" of the claimed invention are different. Specifically, Applicant argues that the Marchi reference calibrates for accurate distance measurement while the claimed invention calibrates the array to ensure that all pixels output the same value for the same phase input. While these calibration goals may be different, it is noted that the claims as written do not define the "calibration". Specifically the claims only recite that a calibration is performed by illuminating and evaluating the pixels. Since any calibration procedure which illuminates and evaluates the pixels would read the "calibration" described in the claims as written, the calibration of Marchi, even if it has goals which differ from the goals described in the specification, meets the claim limitations.
3. Applicant further argues that since Marchi only describes calibration of a single pixel element and not an array of pixels as claimed. However, AAPA discloses such an array wherein each pixel measures a distance to a scene and outputs distance information in a similar manner to the pixel of Marchi. Since the AAPA array is known, and the measurement of distances of a scene using such an array is known, it is believed that one of ordinary skill in the art would find it obvious that the pixels of such an array may be calibrated as taught by Marchi. Applicant also argues with respect to the Marchi reference that even if it were to be applied to the AAPA array, one would be

Art Unit: 2622

lead to performing calibration for each pixel individually. Even if this were true, the claim as written does not require that the calibration for the entire array be performed simultaneously and in parallel. At best, the claims recite that the entire array is illuminated, but does not require that the calibration for each individual pixel be performed in parallel as argued.

4. With respect to claim 14, Applicant argues that Marchi does not disclose detecting pixel-individual phase deviation. Specifically, Applicant argues that “Marchi does not teach anything about detecting pixel-individual phase deviations relative to one another”. However, it is noted that nothing in claim 14 requires that the “pixel-individual phase deviation[s]” be recorded “relative to one another” as argued. Since Marchi disclose detecting a phase error, it is believed that Marchi meets this limitation as claimed.

5. With respect to claim 19, Applicant further argues that Marchi does not disclose “determining respective pixel-individual phase deviations of the demodulated calibration output signals of the several pixels relative to one another or relative to a nominal standard value”. However Marchi discloses a calibration procedure which determines a phase error between an output and an expected output (i.e. “a nominal standard value”; note that the claim as written does not define how this standard value is determined). Therefore, while Marchi does not disclose determining phase differences between pixels relative to one another, Marchi does meet the claimed “nominal standard value” part (since the claim is written using alternative language, only one must be met).

Art Unit: 2622

6. While the calibration of Marchi and the calibration of the specification may have different goals, the claims as written are broad enough to the point that Marchi calibration still meets the claim limitations. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

7. Therefore, Applicant's arguments are not considered persuasive and do not place the application in condition for allowance.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Henn whose telephone number is (571) 272-7310. The examiner can normally be reached on M-F 11-7.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy J Henn/
Primary Examiner, Art Unit 2622